

REMARKS

This paper is responsive to the Non-Final Office Action dated September 27, 2005 (“the Office Action”).

Claims 1-145 were previously pending, with claims 47-112 withdrawn.

Claims 1, 11, 17, 24, 37, 47, 54, 58, 62, 73, 81, 86, 90, 94, 105, 113, 119, 127, and 138 have been amended in this paper. The amendments add no new matter and are supported by the originally filed specification.

Claim 146 has been added. No claims have been canceled.

Thus, claims 1-146 are now pending, with claims 47-112 withdrawn and claims 1-46 and 113-146 under consideration.

Claims 1-46 and 113-145 stand rejected. Claims 1 and 113 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 14, and 16 of U.S. Patent No. 6,856,627 (“the ’627 patent”). Claims 17-21, 27-29, 32, 40-42, 123-125, 130, 132, 133, and 141 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1-26, 28-31, 33-39, 41-46, 113-129, 131, 132, 134-140, and 142-145 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,665,263 issued to Kawabata et al. (“*Kawabata*”) in view of U.S. Patent No. 6,324,162 issued to Chaudhuri (“*Chaudhuri*”).

While not conceding that the Examiner’s cited reference qualifies as prior art, but instead to expedite prosecution, Applicant has elected to respond to the pending rejections as follows. The following arguments are made without prejudice to Applicant’s right to establish, for

example in a continuing application, that one or more of the cited references do not qualify as prior art with respect to an invention embodiment currently or subsequently claimed. Applicant respectfully submits that the claims are patentable and requests reconsideration of the pending rejections in view of the following remarks.

Double-Patenting Rejections

Claims 1 and 113 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 14, and 16 of the '627 patent. The present application is a continuation-in-part application of the '627 patent. The '627 patent is assigned to Cisco Technology Inc., as recorded in the U.S. Patent and Trademark Office. Likewise, the present application has also been assigned to Cisco Technology Inc., as recorded in the U.S. Patent and Trademark Office.

Since the conflicting patent is commonly owned with the present application, a terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome the double-patenting rejections. See 37 CFR 1.130(a). A terminal disclaimer is submitted along with this response. Submission of this terminal disclaimer should not be construed as an admission of anticipation or obviousness of any of the rejected claims in view of the cited reference. Applicant respectfully submits that the double-patenting rejections are now moot in view of the accompanying terminal disclaimer, and requests withdrawal of these rejections.

Rejection of Claims under § 112, second paragraph

Claims 17-21, 27-29, 32, 40-42, 123-125, 130, 132, 133, and 141 stand rejected under § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. These rejections appear to be based on objections to conditional language in the claim limitations. For example, dependent claim 27 reads as follows, with underlining indicating the portion cited by the Office Action as objectionable.

27. (Original) The method of claim 26, further comprising:
if said response to said restoration request is not received within said predefined threshold times,
releasing resources of said virtual path.

The objection appears to be with the use of the word “if” in the claim language. Applicant notes that appropriate antecedent basis for the claim terms “said response to said restoration request,” “said predefined threshold times,” and “said virtual path” is presented in claims 25, 26, and 1, upon which claim 27 depends. Thus, Applicant understands the objection to be directed to the conditional nature of the phrase indicated by the word “if.”

Applicant respectfully submits that the conditional nature of this language does not render claim 27 indefinite under § 112. Rather than introducing uncertainty into the claim, the conditional term “if” is properly used in claim 17 to indicate a definite condition under which a subsequent act is performed. In this case, the “releasing resources of said virtual path” is performed in the situation where the response to the restoration request is not received within the predefined threshold times. A definite condition and a definite corresponding result are clearly set forth in the language of claim 27. Thus, claim 27 is not indefinite, and Applicant respectfully

submits that claim 27 is allowable under § 112. For similar reasons, Applicant respectfully submits that claims 17-21, 28-29, 32, 40-42, 123-125, 130, 132, 133, and 141 are also allowable under § 112, and respectfully requests that the rejections under § 112 be withdrawn.

Rejection of Claims under § 103(a)

Claims 1-26, 28-31, 33-39, 41-46, 113-129, 131, 132, 134-140, and 142-145 stand rejected under § 103(a) as being unpatentable over *Kawabata* in view of *Chaudhuri*. Applicant respectfully submits that the claims are allowable under § 103(a) because the cited references, taken either individually or in combination, fail to disclose each limitation of the pending claims.

For example, independent claim 1 as amended is directed to a method for restoring a virtual path in an optical network and includes limitations of:

broadcasting a plurality of resource request packets to a plurality of nodes in said optical network,

dynamically identifying a plurality of nodes with resources wherein said nodes with resources are ones of said nodes having a resource necessary to support said virtual path,

and

dynamically determining an alternate physical path

(emphasis added).

The acts of identifying and determining are performed in conjunction with the act of broadcasting in claim 1. To further clarify this relationship, Applicant has amended claim 1 to indicate that the acts include *dynamically identifying* and *dynamically determining*.

The cited art does not disclose the limitation of dynamically determining an alternate physical path. *Kawabata* presents a network configuration (FIG. 4) in which two virtual path groups (VPGs) are initially configured: a working VPG 121 and a standby VPG 122. *Kawabata* at col. 1, lines 30-41. In *Kawabata*, a number of standby (protection) virtual paths are provided in advance and are grouped into the standby VPG 122. *Id.* at col. 1, lines 41-47, 59-63. Although no bandwidth is assigned to these standby virtual paths in *Kawabata*, they are provided in advance as standbys, prior to any path failure and prior to any procedures that use messages to conclude the restoration of a failed path.

If an error occurs in the *Kawabata* system, a VPG switching request message is used to allocate bandwidth on the standby virtual paths. *Id.* at col. 1, lines 59-63. However, neither the VPG switching request message nor other messages in *Kawabata* are used to dynamically determine an alternate physical path, since the *Kawabata* standby virtual paths are provided in advance, prior to any procedures involving the VPG switching request message. Thus, *Kawabata* fails to disclose the limitation in Applicant's claim 1 of dynamically determining an alternate physical path.

Further, *Chaudhuri* also does not disclose this limitation. *Chaudhuri* presents techniques for pre-computing path information that may be pre-stored to enable rapid restoration in the event of the failure of a working channel. *Chaudhuri* at Abstract. *Chaudhuri* describes a Restoration Path Computing System (RPCS) that pre-computes alternate restoration paths between end-point nodes. Information about the pre-computed restoration paths may be stored in a restoration path database. *Id.* at col. 3, lines 47-50; col. 4, lines 19-39. Since they are pre-computed, the alternate restoration paths in *Chaudhuri* are not dynamically determined alternate

physical paths. Thus, *Chaudhuri* also fails to disclose the limitation in Applicant's claim 1 of dynamically determining an alternate physical path.

At least for this reason, Applicant's independent claim 1 and all claims dependent therefrom are allowable under § 103(a). For at least similar reasons, Applicant's independent claim 113 and all claims dependent therefrom are also allowable under § 103(a).

In addition, Applicant respectfully submits that the cited references lack a suggestion or motivation to make the combination of references used in the Office Action. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. MPEP § 2142. As noted in the Office Action with respect to claim 1, *Kawabata* does not disclose the limitation of configuring the alternate physical path by establishing a communication connection between the ones of the nodes with resources. Office Action at 4. The Office Action proposes that it would have been obvious to one of ordinary skill in the art to apply the teaching of *Chaudhuri* in order to configure an alternate physical connection into *Kawabata* and restore a failed virtual path over an alternate physical path, with a motivation of reestablishing a virtual connection between a first node and a second node. *Id.* at 4-5.

Assuming the Office Actions characterization of the cited art is correct (and Applicant does not concede this point), a person having ordinary skill in the art would not turn either from *Kawabata* to *Chaudhuri*, or from *Chaudhuri* to *Kawabata* with the proposed motivation, because each reference in itself teaches a different but complete technique for reestablishing a virtual connection between a first node and a second node. The pre-computed paths from the RPCS in *Chaudhuri* enable this goal to be reached, as set forth in that reference. Similarly, in *Kawabata*

the VPG switching request message is used in conjunction with other tools to allocate bandwidth on the standby virtual paths, and to reestablish communication between ATM nodes in that reference. Thus, a person of ordinary skill would not make the proposed combination of references with the motivation proposed in the Office Action. Further, Applicant sees no other suggestion or motivation in the cited references to make the proposed combination of *Chaudhuri* and *Kawabata*. Accordingly, for this reason as well, the claims are allowable under § 103(a).

Applicant further notes that even if it were proper, the proposed combination of *Chaudhuri* and *Kawabata* would not have a likelihood of success in achieving Applicant's claimed invention. For example, the combination would not achieve the method set forth in Applicant's claim 1. At best, a designer working with both references may attempt to adapt the RPCS that pre-computes alternate restoration paths between end-point nodes in *Chaudhuri*, and to use the adapted RPCS to assist in the pre-computation of the standby virtual paths in the *Kawabata* system. However, this combination (even if viable) would still not provide the method of claim 1, since this combination would not include an act of dynamically determining an alternate physical path. For similar reasons, the proposed combination would also not provide the computer system of claim 113. Thus, even if the proposed combination of references were proper, the resulting combination would not have a likelihood of success in achieving the invention set forth in Applicant's claims. For this additional reason as well, the claims are allowable under § 103(a).

At least for these reasons, Applicant respectfully submits that claims 1-46 and 113-145 are allowable under § 103(a), and respectfully requests that the rejections under § 103(a) be withdrawn.

CONCLUSION

Applicant submit that all claims are now in condition for allowance, and an early notice to that effect is earnestly solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia, 22313-1450, on December 27, 2005.

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2005 Dec 27
Date of Signature

Respectfully submitted,



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